



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/552,093	06/07/2006	Gunther Schwarzer	FRZ-100US	4207
23122	7590	05/01/2008		
RATNERPRESTIA			EXAMINER	
P O BOX 980			TRAN, CHUC	
VALLEY FORGE, PA 19482-0980				
			ART UNIT	PAPER NUMBER
			2821	
			MAIL DATE	DELIVERY MODE
			05/01/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary**Application No.**

10/552,093

Applicant(s)

SCHWARZER, GUNTHER

Examiner

CHUC D. TRAN

Art Unit

2821

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 June 2006.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-3, 5-9 and 12-17 is/are rejected.
7) ☒ Claim(s) 4, 9 and 10 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 07 June 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/S508)
Paper No(s)/Mail Date 6/7/06
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the “cone-shaped shell” must be shown or the feature(s) canceled from the claim(s) 5 and 12. No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-3, 6-8, 11 and 13-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Phelan (USP. 4,087,821).

Regarding claim 1, Phelan disclose a device for receiving and releasing free forms of energy by radiation in Fig. 1-6, comprising a number of antenna elements (34, 36, 38 40) (Fig. 4) arranged about a common axis (31) (Fig. 6) with an electrical conductor each (transmission line) (Fig. 3) (Col. 3, line 41), whereby the antenna elements are divided between at least two groups (22, 24) (Fig. 6) provided on different parallel planes (Fig. 3) (Col. 3, Line 25), wherein a first group (22) has at least three antenna elements (Fig. 4 and 6) which are arranged adjacent to one another in a distributed manner namely (spiral) (Fig. 4), around at least one imaginary circle about a group axis (31) (Fig. 3 and 4), and each antenna element of the first group (22) is electrically connected to an antenna element of a second group (24) associated therewith (Fig. 6) (Col. 3, Line 15).

Regarding claims 2 and 3, Phelan disclose that some of the electrical conductor antenna elements are flat lines spiral-like manner about a center of each antenna element (Fig. 4).

Regarding claim 6, Phelan disclose that an electrical conductor (31) consisting of interconnected closed geometric figures-each (Fig. 3).

Regarding claim 7, Phelan disclose that the geometric figures have a similar shape as the

antenna elements (Fig. 6), but become smaller and smaller towards a center of the geometric figures (Fig. 4).

Regarding claim 8, Phelan disclose that the antenna elements of the first and second are arranged in pairs congruent to one another in the different planes (Fig. 2 and 3).

Regarding claim 11, Phelan disclose that the first and second groups (22 and 24) are arranged on different plates that are parallel to one another (Fig. 3), and the electrical connection of the antenna elements of both groups corresponding to one another is made by means of electrically conductive connection pieces (Col. 3, Line 41), which at the same time mechanically stabilize the plates in relation to one another (Fig. 3 and 6).

Regarding claim 13, Phelan disclose that the first group (22) is arranged on one side of a plate (Fig. 2 and 3), on the opposite side of which is arranged a third group (26), different from the first (22) and second groups (24) of antenna elements (Fig. 2 and 3), which are electrically connected to the respective, corresponding antenna elements of the first group (Col. 3, line 15).

Regarding claim 14, Phelan disclose that the antenna elements of the third group (ground) (26) have a direction of winding that is opposite that of the antenna elements of the first group (22) (Fig. 3) (Col. 3, Line 15).

Regarding claim 15, Phelan disclose that the number of antenna elements in a group is even-numbered, and particularly four (Fig. 4) (Col. 3, Line 21).

Regarding claim 16, Phelan disclose that a housing (dome) (12), is electrically separated from the antenna elements (Col. 3, Line 1-6) (Fig. 1).

Regarding claim 17, Phelan disclose that the housing has a concave top side and bottom side.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 5 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Phelan in view of Lamberty et al (USP. 4,243,993).

Regarding claims 5 and 12, Phelan disclose a device for receiving and releasing free forms of energy by radiation as set forth in the claims except a spiral line antenna elements running around a cone-shaped shell. Lamberty disclose spiral antenna in Fig. 5, comprising a spiral line antenna elements (42) running around a cone-shaped shell (Lamberty, Fig. 5A). Thus, it would have been obvious to one of ordinary skill to modify Phelan antenna device by forming the spiral antenna elements on the outer surface of the cone-shape shell as taught by Lamberty. Forming the spiral antenna elements on the outer surface of the cone-shape shell for receiving and transmitting free forms energy of Lamberty would have been obvious to one of ordinary skill.

7. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Phelan in view of Stark (USP. 3,852,748).

Regarding claim 17, Phelan disclose a device for receiving and releasing free forms of energy by radiation as set forth in the claims except the housing has a concave top side and bottom side. Stark disclose an antenna device in Fig. 4, comprising the concave top side and bottom side (Stark, Col. 3, Line 54) (Fig. 4). Thus, it would have been obvious to one of ordinary

skill to modify Phelan antenna device by using the concave top side and bottom side for housing the antenna device as taught by Stark. Using the concave top side and bottom side for housing the antenna device for compensating radiation energy of Stark would have been obvious to one of ordinary skill.

Allowable Subject Matter

8. Claims 4 and 9-10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHUC D. TRAN whose telephone number is (571)272-1829. The examiner can normally be reached on M-F Flex hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas W. Owens can be reached on (571) 272-1662. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TC
April 25, 2008

/Douglas W Owens/
Supervisory Patent Examiner, Art Unit 2821
April 26, 2008